

C598 U.S. PTO
09/664794
09/19/00

(DO NOT USE FOR CIPs)

Group Art Unit: 1734

Examiner: J. SELLS

Inventor(s): BRADSHAW et al.

Parent Appln. No.:	09	213,876	Atty. Dkt.	PM 271077	Dkt. 7 - CON
	Series Code ↑	Serial No. ↑		New M#	Client Ref

Parent Filed: December 17, 1998

This Appln. Filed: Herewith

Title: LAMINATING AND ADHESIVE TRANSFER APPARATUS

Hon. Commissioner of Patents
Washington, DC 20231

Date: September 19, 2000
(Parent Matter No. 255844)

Sir:

To effect the above-requested filing today:

Attached is a copy (**which must be filed**) of the prior application, including:

- ☒ Abstract
☒ Specification and claims (17 pages) (**must be attached**)
☒ Drawings (**must be attached if originally filed**): 4 sheet(s)/set: ☐ 1 set informal;
☒ Formal of size ☒ A4 ☐ 11"

1A. Always X one box, only:

- (1) ☒ Copy of Signed declaration or oath as originally filed in prior application attached
- (2) ☐ NO declaration or fee is enclosed; therefore, this is a filing under Rule 53(f).

2. ☐ This application is hereby filed by less than all of the inventors named in the prior application. Petition is hereby made requesting deletion as inventor(s) of the following who is/are **not** inventor(s) of the invention being claimed in this application (DELETE THE FOLLOWING INVENTOR(S)):

1. _____
3. _____
5. _____
7. _____
2. _____
4. _____
6. _____
8. _____

2.5 THE INVENTOR(S) FOR THIS NEW APPLICATION IS(ARE):

1. _____

3. _____

5. _____

7. _____

2. _____

4. _____

6. _____

8. _____

3. The entire disclosure of the prior application is considered as being part of the disclosure of the accompanying application and is hereby incorporated therein by reference thereto.

4. ☐ Priority is claimed under 35 U.S.C. 119/365 based on filing in _____ of _____ (country)
- | Application No. | Filing Date | Application No. | Filing Date |
|-----------------|-------------|-----------------|-------------|
| (1) _____ | _____ | (2) _____ | _____ |
| (3) _____ | _____ | (4) _____ | _____ |
| (5) _____ | _____ | (6) _____ | _____ |

a. ☐ _____ (No.) Certified copy/copies attached.

b. ☐ Certified copy/copies previously filed on _____ in _____
U.S. Application No. _____ / _____, filed on _____
series code ↑ serial no.

c. ☐ Certified copy/copies filed during International stage of PCT/ _____ / _____

4. (a) ☐ Domestic priority is claimed from _____ / _____, filed _____
PCT/ _____

(b) ☐ Benefit is claimed of Provisional Application No. 60/_____, filed _____.

5. ☒ Prior application is assigned to XYRON, INC.

by assignment recorded May 13, 1999 Reel 9942 Frame 0461.
(Date)

☒ Attached is the following number of Assignments (including original and all later successive ones by different assignors): 1 and respective new Cover Sheets. (Do **NOT** file old cover sheets.)

(Assignments in parent **must be refiled** with new Cover Sheets in this continuing application if you want it/them recorded against the continuing application.)

Please return the recorded Assignment to the undersigned.

☒ The power of attorney in the prior application is to Pillsbury Madison and Sutro LLP, including Raymond L. Lippitt, Reg. No. 17,519
(Name and Reg. No.)
whose current address is as in item 8 below.

a. ☒ Recognize as associate attorney Bryan P. Collins, Reg. No. 43,560
(Name, Reg. No. and Address)

8. **Address all future communications to Intellectual Property Group of Pillsbury Madison & Sutro LLP, Ninth Floor, East Tower 1100 New York Avenue, N.W., Washington, D.C. 20005-3918**

9. ☒ **Amend the specification** by inserting before the first line the sentence:--This is a
☒ continuation ☐ division of Application No. 09/213,876, filed December 17, 1998
series code ↑ serial no.
which is a Reissue application of USP 5,584,962, issued December 17, 1996 .--

9. (a) ☐ **Amend the specification** by inserting before the first line: --This application claims the benefit of Provisional Application No. 60/_____, filed _____ .--

10. ☐ It has been recently determined that this new continuing application is entitled to small entity status.
Hence:
(No.) Verified Statement(s) establishing "small entity" status under Rules 9 & 27 were/are:
☐ filed in above prior application (and hence applicable hereto)
☐ attached.

11. **Petition to extend the life of the above prior application to at least the date hereof**
(one box) ☐ is being concurrently filed in that prior application (Use Form PAT-111).
(must be) ☐ was previously filed in that prior application (Check length of prior extension).
(X'd) ☒ is not necessary for copendency (**Double check** before X'ing this box).

12. ☒ **INFORMATION DISCLOSURE STATEMENT:** Attached is Form PTO-1449 listing all of the documents cited by Applicant and the PTO in the parent application(s) relied upon under 35 USC 120 and referenced in item 9 above. Per Rule 98(d) copies of those documents are not required now. Please consider those documents and advise that they have been considered in this new application as by returning a copy of the enclosed Form PTO-1449 with the Examiner's initials in the left column per MPEP 609. .
13. ☐ Attached is a Rule 103(a) Petition to Suspend Action.
14. ☒ **PRELIMINARY AMENDMENT to be entered before fee calculation:** (Do not make amendments here except for correction of improper multiple dependencies or cancellation of whole claims or multiple dependencies for purpose of reducing the filing fee per MPEP §§ 506 and 607; do not cancel all claims).

Cancel claims 2-35

FILING FEE

THE FOLLOWING FILING FEE IS BASED ON

-->-->-->CLAIMS AS FILED AND CHANGED BY PRELIMINARY AMENDMENT IN ITEM 14<--<--<--

NOTE: If box 1A2 is X'd, do not pay fees,
but leave lines 15-22 and 27-32 blank.

PTO: PLEASE NOTE CLAIM CANCELLATIONS IF BOX 14 ABOVE IS X'D.

				Large/Small Entity		Fee Code
15. Basic Filing Fee	.....Design Application			\$310/\$155		106/26
16. Basic Filing Fee	.....Not Design Application			\$690/\$345	+690	101/201
17. Total Effective Claims	1	minus 20 =	0	x \$18/\$9	+0	103/203
18. Independent Claims	1	minus 3 =	0	x \$78/\$39	+0	102/202
19. If any proper multiple dependent claim (ignore improper) is present,				\$260/\$130	+0	104/204
20.				Subtotal =	\$690	
21. If "petition" box 13 above is X'd, add petition fee.	.....\$130				+0	122
21A. If box 6 above is X'd, add Assignment recording fee	.....\$ 40				+40	581

22. **TOTAL FILING FEE ATTACHED =** **\$730**
(carry forward to Item 31)

23. ☒ ATTACHED: Certificate Under 37 C.F.R. 3.73(b) as filed on December 17, 1998 in parent application no. 09/213,876, filed December 17, 1998
24. ☐ Preliminary Amendment attached (to be entered after assigning Appln. No.)
25. ☐ The following PRELIMINARY AMENDMENT is to be entered after assigning Appln. No.:

26.

**ADDITIONAL FEE CALCULATION FOR
PRELIMINARY AMENDMENT
PER BOXES 24/25**

	Claims remaining after amendment	Highest number previously paid for	Present Extra	Additional Fee	
					<u>Large/Small Entity</u> <u>File Code</u>
27.	Total Effective Claims *	minus **	=	x \$18/\$9 = \$ 0	(103/203)
28.	Independent Claims *	minus ***	= 0	x \$78/\$39 = + 0	(102/202)
29.	If amendment enters proper multiple dependent claim(s) into this application for the <u>first time</u> , add (per application)			\$.260/\$130 + 0	(104/204)
30.				ADDITIONAL FEE \$ 0	
31.				plus FEE from item 22 on page 3 + 730	
32.				<u>TOTAL FEE ATTACHED</u> \$ <u>730</u>	

33. *If the entry in this space is less than a entry in the next space, the "Present Extra" result is "0"

34. **If the "Highest number previously paid for" (see item 17 above) is less than 20, write "20" in this space

35. If the "Highest number previously paid for" (see item 18 above) is less than 3, write "3" in this space

Our Deposit Account No. 03-3975

Our Order No.	81069	271077
	C#	M#

CHARGE STATEMENT: Upon the filing of a Declaration pursuant to Rule 60(b) or 60(d), the Commissioner is hereby authorized to charge any fee specifically authorized hereafter, or any missing or insufficient fee(s) filed, or asserted to be filed, or which should have been filed herewith or concerning any paper filed hereafter, and which may be required under Rules 16-18 (missing or insufficient fee only) now or hereafter relative to this application and the resulting Official document under Rule 20, or credit any overpayment, to our Account/Order Nos. shown above for which purpose a duplicate copy of this sheet is attached.

This CHARGE STATEMENT does not authorize charge of the issue fee until/unless an issue fee transmittal form is filed.

**Pillsbury Madison & Sutro LLP
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By Atty: Bryan P. Collins

Sig: [Signature]

Reg. No. 43560

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NOTE No. 1: File this Request in duplicate with 2 postcard receipts (PAT-103) & attachments

NOTE No. 2: Is extension in parent necessary for copendency? **DOUBLE CHECK** Item 11 above.
If yes, printout Pat-111 and head it in parent.

APPLICATION UNDER UNITED STATES PATENT LAWS

Atty. Dkt. No. PM 271077
(M#)

Invention: LAMINATING AND ADHESIVE TRANSFER APPARATUS

Inventor (s): BRADSHAW, Franklin C.
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This is a:

- ☐ Provisional Application
- ☐ Regular Utility Application
- ☒ Continuing Application
 - ☒ The contents of the parent are incorporated by reference
- ☐ PCT National Phase Application
- ☐ Design Application
- ☐ Reissue Application
- ☐ Plant Application
- ☐ Substitute Specification
 - Sub. Spec Filed _____
 - in App. No. _____ / _____
- ☐ Marked up Specification re
 - Sub. Spec. filed _____
 - In App. No _____ / _____

SPECIFICATION



US005584962A

United States Patent [19]

[11] Patent Number: 5,584,962

Bradshaw et al.

[45] Date of Patent: *Dec. 17, 1996

[54] LAMINATING AND ADHESIVE TRANSFER APPARATUS

[76] Inventors: Franklin C. Bradshaw, 8621 E. Cheryl Dr., Scottsdale, Ariz. 85258; Thomas L. Soderman, 14539 Old Guslander Trail, Marine on St. Crois, Minn. 55047

[*] Notice: The term of this patent shall not extend beyond the expiration date of Pat. No. 5,580,417.

[21] Appl. No.: 247,003

[22] Filed: May 20, 1994

[51] Int. Cl.⁶ B32B 31/04

[52] U.S. Cl. 156/495; 156/522; 156/555; 100/176; 242/156; 242/419.9

[58] Field of Search 156/522, 555, 156/583.1, 229, 494, 495, 510; 492/47, 60; 100/155 R, 176; 425/363; 242/156, 419.8, 419.9

[56] References Cited

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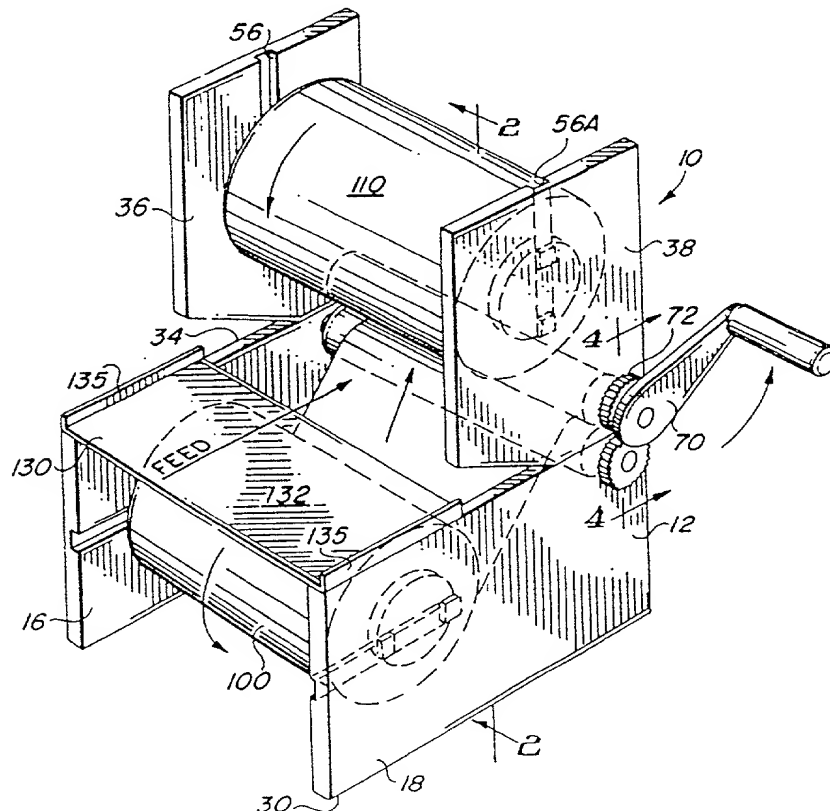
Primary Examiner—James Sells

Attorney, Agent, or Firm—Gregory J. Nelson

[57] ABSTRACT

A multi-purpose laminating and adhesive transfer apparatus having a frame supporting rotatably engaging nip rollers. The frame has upper and lower feed rolls which may be a laminate, film or paper, or an adhesively coated film or a film having an affinity for adhesive. The upper and lower feed rolls containing the webs of laminating or adhesive transfer material have tensioning caps which can be adjusted to provide the proper tensioning to prevent the rollers from overrunning as they rotate. The tensioning caps are pre-set and provided to the user. A cutter blade is positioned at the discharge side of the nip rollers and may be actuated to sever the master at any desired location. The apparatus may be operated to apply lamination to either top or bottom surfaces of a substrate.

18 Claims, 4 Drawing Sheets



I

LAMINATING AND ADHESIVE TRANSFER APPARATUS

FIELD OF THE INVENTION

The present invention relates to a device which will laminate objects and which also will transfer adhesive to a substrate for purposes such as labeling.

BACKGROUND OF THE INVENTION

It is common practice to protect documents and other items by encasing them in clear plastic coverings. Various products, generally known as protectors are available for this purpose. Another common way of protecting documents is to laminate them. Lamination involves sealing the document or item between oppositely applied transparent films.

Another operation which is commonly applied to documents and papers is that of adhesive transfer. Adhesive transfer is practiced when it is desired, for example, to make labels or stickers. One manner of producing such stickers and labels is to print the stickers or labels on blanks provided for this purpose. The blanks generally have an adhesive backing and are secured to a liner from which they are peeled at the time of use. This manner of making labels or stickers is expensive and further is limiting in that the printed material must be adapted to the physical size or confines of a label or sticker which is generally small in size.

Based on the foregoing, there exists a need for a multi-purpose machine which can both serve to apply laminates to documents and papers and which will also serve the purpose of adhesive transfer to materials of various sizes. For example, the apparatus of the present invention can apply clear plastic laminates to master substrates of various sizes and similarly can transfer adhesive to master substrates of various sizes and not limited by length. The adhesive transfer can be applied to either surface of the master as desired.

SUMMARY OF THE INVENTION

Briefly, in accordance with the present invention, a multi-purpose laminating and adhesive transfer device is provided which has a frame member with mounting means for receiving a first roll material such as a laminate or roll of film coated with releasable adhesive. A first nip roller extends transversely across the base. An upper frame member is pivotally secured to the base. The upper frame member has means for mounting or securing a roll of material such as a laminating film or a paper or film which has affinity for an adhesive. A second nip roller extends transversely across the upper frame member and, with the upper frame member positioned in the operative position relative to the base, the nip rollers engage or are closely proximate to one another. An actuator which may be powered or may be manual such as a hand crank is provided for driving or rotating at least one of the nip rollers. The upper frame member can be pivoted to an open position to facilitate loading of rolls of material in the base and upper frame member and to facilitate their insertion between the nip rollers. In an alternate embodiment, one of the nip rollers is mounted on a gibb plate so the rollers may be "opened".

The upper and lower rollers containing the webs of laminating or adhesive transfer material have tensioning caps which can be adjusted to prevent the rollers from overrunning as they pay-out material. The tensioning caps

may be pre-set by the material supplier or may be adjusted at the time of use.

A feed tray is mountable either to the base or the upper frame member for feeding the master to be processed. By way of example, the lower feed roll can be a flexible film with an adhesive and the upper feed roll a supply of film with has an affinity for adhesive. A pre-printed master such as a master consisting of labels repetitively printed on a sheet can be fed via the feed tray to the interface between the nip rollers. Adhesive will be transferred from the bottom web to the labels with excess adhesive being picked up by the top web. The labels are now provided with an adhesive and may be severed at a cutting edge provided at the rear of the device.

Accordingly, it is a primary and broad object of the present invention to provide a simple and efficient laminating and/or adhesive transfer device.

BRIEF DESCRIPTION OF THE DRAWINGS

The above and other objects, advantages and features of the present invention will be more fully understood from the following description, claims and drawings in which:

FIG. 1 is a perspective view of the transfer device of the present invention shown in an operative position;

FIG. 2 is a sectional view of the transfer device of the present invention shown in an operative position taken along line 2—2 of FIG. 1;

FIG. 3 is a partial side view showing the device in an open or loading position;

FIG. 4 is a view taken along lines 4—4 of FIG. 1 with the feed rolls removed;

FIG. 5 is an exploded perspective view of the device;

FIG. 6 is an end view of a feed roller;

FIG. 7 is a sectional view taken along line 7—7 of FIG. 5;

FIG. 8 is an exploded view showing the tensioning cap positioned at the end of a feed roll;

FIG. 9 is a partial rear perspective view showing the cut-off blade;

FIG. 10 is a view showing a master fed between the nip rollers;

FIG. 11 is a plan view of the feed master showing adhesive applied;

FIG. 12 is a plan view of the upper feed web showing pick up of excess adhesive thereon;

FIG. 13 shows the removal of adhesive from the lower web;

FIG. 14 is a perspective view of an alternate embodiment of the invention; and

FIG. 15 is a sectional view taken along line 15—15 of FIG. 14.

Turning now to the drawings, particularly FIGS. 1 to 5, the apparatus of the present invention is generally designated by the numeral 10 which includes a lower frame member or base 12 and an upper frame member 14. The lower frame member consists of spaced-apart side plates 16 and 18 secured in spaced-apart relationship by transversely extending spacer rod 25. The inner faces of the side plates are provided with horizontally extending grooves 28 and 28A which provide mounting means to accommodate the insertion of feed rolls as will be explained hereafter. The side plates are shown as rectangular having a bottom edge 30

which serves as a supporting surface or stand for the apparatus and a horizontal top edge 34.

The upper frame member 14 includes a pair of spaced-apart side plates 36 and 38. The side plates 36, 38 are shown as each having top and bottom edges 40 and 42 and front and rear edges 44, 46, respectively. An angular surface 45 extends between the bottom edge and the front edge to facilitate access to the nip rollers for loading and unloading.

Plates 36, 38 are pivotally mounted to lower plates 16 and 18 by means of pivot link 48. In the normal operative position, the bottom edge 42 of the upper side plates rests on the upper horizontal surface 34 of the lower side plates. In the open position, as shown in FIG. 3, the upper frame member is rearwardly tilted about pivot 48 to a position in which the rear surface of the lower end plates engage the lower edge of the upper frame member to provide access for loading and unloading.

Feed material is secured in the upper frame member by inserting a feed roll into slots 56 and 56A extending vertically in the inner surface of the opposite plates.

An upper nip roller 60 extends transversely between the side plates of the upper frame member positioned adjacent the lower edge 42 of the plates. The upper nip roller includes an axial shaft 62 which is rotatable in suitable bearings or bushings 64. A stop nut or cap, not shown, is provided at the left end of the shaft, as viewed in FIG. 1.

The shaft is covered by a cylindrical roller member 65 of resilient material such as rubber. The shaft 62 projects exteriorly of the side plate 38 and is shown carrying a hand crank 70 for manually rotating the roller and shaft. Alternatively, the rollers may be powered by an electrical driven motor. A pinion gear 72 is secured to the shaft 62 adjacent the exterior surface of side plate 38, as best seen in FIG. 4.

A second nip roller 80 extends transversely between the lower side plates positioned parallel to the upper nip roller. The lower nip roller may be vertically aligned with the upper nip roller but preferably is forwardly displaced a small distance ahead of the upper nip roller as for example 1/4" as seen in FIG. 2. The lower nip roller has a shaft 82 which is rotatable in bearings or journals 84 in the side plates 16 and 18. A pinion gear 85 is carried on the extension of shaft 82 at side plate 18. When the upper frame is in its operative position, gear 85 will engage the upper pinion gear 72 so that actuation of the upper nip roller shaft by crank 70 or by other power means will impart rotation to both nip rollers.

As mentioned above, the device may be used as a laminator or as an adhesive transfer device. In the case of use as an adhesive transfer device, a lower feed roll 100 carrying a transferrable adhesive is secured in the lower frame member. Referring to FIGS. 10 to 13, the feed roll includes a web 102 of flexible carrier material having release characteristics on the lower surface and an adhesive coating 106 on the other surface. With the roll in position, the end of the web 102 is extended over the lower roller 80 as shown in FIGS. 2 and 10. An upper feed roll 110 is positioned in engagement with the slots 56 and 56A in the interior surface of the upper side plates. The upper feed roll, in the case of adhesive transfer, will consist of a web 112 of material such as inexpensive paper or film having an affinity for adhesive. The end of the web 112 is extended between the nip rollers with the end of the web adhesively secured to the web of the master 125 in the lower roll.

The upper frame member is then rotated to a closed position bringing the nip rollers 60 and 80 into engagement or close proximity with the webs 102, 112 and master 125 compressed therebetween.

A feed tray ^[130] ₁₃₁ which consists of a planar feeding surface 132 and opposite extending flanges 135, 135A is suspended from the sides of the lower frame member. This is accomplished by engaging flanges 135 and 135A with the respective upper edges of the side plates.

Referring to FIG. 9, cutter bar 150 is shown which extends transversely between the lower side plates rearwardly of the nip rollers. The cutter bar 150 has a sharpened edge 152 which allows the operator to easily manually sever a master at any location as it is being processed when it emerges rearwardly from between the nip rollers.

Referring to FIGS. 10-13, the master, which is designated by the numeral 125, consists of a continuous sheet of material having an upper surface 126 and a lower surface 128. The upper surface 126 is imprinted with indicia 131 forming a repetitive pattern of labels which have been pre-printed as desired, although the master can be any pre-printed documents or series of documents. The master is aligned on the feed tray with the free edge of the master positioned on the exposed adhesive surface 106 of the lower feed stock. The slight forward protrusion of the lower nip roller facilitates securing the master to this location.

The operator then actuates the machine by operating the crank which will rotate the upper nip roller 60 and by means of the inter-engaging pinion gears, cause rotation of the lower nip roller 80. This rotation will advance the upper web 112, lower web 106 and the master 125. As the master proceeds between the nip rollers, the exposed adhesive 106 from the lower web will be transferred to the lower surface 128 of the master. The upper web will pick up any excess adhesive not transferred to the master, as for example areas outside the perimeter of the label areas 130. The upper pick-up web should be wider than the adhesive web. The master may then be easily severed into individual labels by transversely severing the master at predetermined locations. The labels are shown as being on a continuous strip which has been pre-printed with the desired indicia 135.

Note that the master can be oriented with either the printing or indicia facing upwardly or downwardly, depending on the user's requirements. For example, if the labels are to be applied to the inside of a window, the master would be in most cases fed into the applicator with the printing downwardly positioned so adhesive would be applied over the printing 130. The apparatus can apply lamination to either the top or bottom surfaces of a substrate or adhesive to the top or bottom surfaces of a substrate or to both. The device can also perform combination operations of applying both a laminate and an adhesive to a substrate.

The characteristics of the lower web are such that the adhesive 106 is a non-aggressive adhesive loosely adhered to the surface of the web. Thus, the lower web serves as a peelable covering which can be stripped away at the time the master is to be used by adhesively applying the master to a surface.

One significant advantage of the device of the present invention is that the upper and lower feed rolls may be provided to the end user pre-wound and properly tensioned so as to not overrun during operation. The proper tensioning of the feed rolls is accomplished by means of a tensioning device as best seen in FIGS. 7 and 8. In FIGS. 7 and 8, one end of the feed roll core 200 is shown about which is wound the roll of web material and which is representative of either roll 100 or 110. The core is a cylinder of cardboard or plastic having an end face 210. Core 200 has an interior 212 which receives end cap 215. The cap may be of molded plastic or other similar material having an interior outer wall 216. A

boss 220 is concentrically formed in the cap with respect to the cylindrical wall 216. Boss 220 defines an axial bore 225. The cap 215 is positioned slightly inwardly of the end 210 of the core and may be adhesively secured in place to the interior wall 212 of the roll core.

A circular end plate 230 abuts the end of the core having a diameter slightly greater than the diameter of the core. The end plate has a central aperture 240 which receives the threaded shaft of bolt 246. A spring 250 is interposed between the head of the bolt and the interior face of the cap 215. A nut 252 engages the threaded end of the bolt. The head of the bolt 246 bears against the exposed surface of the end plate and the position of the nut determines the frictional resistance that exists between the interior surface of the end plate 230 and the end face 210 of the core of the roller. This tension is pre-adjusted by the manufacturer to provide the proper roll tension depending upon the type of material, size of the material, thickness of the material and other factors.

Mounting tabs 260 and 260A project outwardly from the end plate and are engageable in the mounting slots provided on the interior surfaces of the upper and lower end plates of the applicator device.

Thus, it will be seen that inserting a supply of feed stock either in the upper or lower frames is easily accomplished. The existing or spent feed rolls are removed by sliding them outwardly to disengage the tabs from the slots. The new roll is inserted by aligning the mounting tabs with the slots and sliding the new feed roll into place.

The feed rolls may be supplied with various types of feed stock webs such as clear laminates, paper for removing excess adhesive or rolls of material having a loose adhesive coating and a release coating on the opposite surface.

FIGS. 14 and 15 show an alternate embodiment of the apparatus of the present invention which is generally designated by the numeral 400. Elements which are the same or similar to elements described with respect to the preceding figures are identified by the same numerals. The apparatus of FIGS. 14 and 15 has a frame consisting of opposite side walls 436 and 438. The side walls are again provided with vertically extending grooves 56, 56A and horizontally extending grooves 28, 28A which accommodate the insertion of feed rolls 110 and 100, respectively. In this embodiment, the side walls of the frame are fixed and separation of nip rollers 60 and 80 is accomplished by means of a gibb plate arrangement as will be explained hereafter.

Since mounting slots 56, 56A are vertically disposed, the weight of the roller 110 will maintain the feed roll in the proper position. Preferably the feed rollers 100 and 110 are positioned as close to the nip rollers as possible to maintain accurate feeding and to minimize misalignment. It may be desirable to provide positive biasing means to urge feed roll 100 rightwardly as shown in FIG. 14. To this end, a link 430 is pivotally secured at pivot point 432 to the interior of the side wall 436. A similar link may be disposed on the interior side wall 438. A spring 435 is disposed below the slot 28. When the roll 100 is inserted, link 432 may be rotated downwardly as indicated by the arrow and engaged with spring 435 to apply a biasing force to the feed roll to maintain it in a secure position.

As indicated above, it is desirable that the nip rollers 60 and 80 be separated to provide access for purposes of loading the apparatus. In the prior embodiment, access was provided by a frame arrangement in which one portion of the frame is pivotal with respect to the other. In the embodiment of FIGS. 14 and 15, the lower nip roller 80 extends between the interior side walls of the side plate and mounted at

opposite ends at bearing arrangement 485. The upper nip roller 60 is provided with opposite stub shafts 444 which are received in bearings in opposite gibb plates 450 and 452. Gibb plates 450 and 452 are vertically slidable and are upwardly biased by springs 460. In FIG. 15, the rollers are shown in a closed position in which they are in contact or close engagement. The nip rollers are maintained in position by shaft 425 which is operated by nip engagement lever 470. It will be seen that by rotating lever 470, shaft 425 will be rotated bringing notches or grooves 480 into engagement with the upper end of the gibb plates 450, 452. This will allow the gibb plates and nip roller 60 to move upwardly separating from lower nip roller 80. In the closed position, as shown in FIG. 15, the shaft 425 is rotated into engagement with the gibb plates 450, 452 to force the gibb plates and upper nip roller downwardly into engagement with the lower roller overcoming the bias of the springs 460.

While the principles of the invention have been made clear in the illustrative embodiments set forth above, it will be obvious to those skilled in the art to make various modifications to the structure, arrangement, proportion, elements, materials and components used in the practice of the invention. To the extent that these various modifications do not depart from the spirit and scope of the appended claims, they are intended to be encompassed therein.

We claim:

IN THE CLAIMS:

1. An application and transfer device comprising:

[(a)] a frame [having opposite sides];

[(b)] a first nip roller rotatably mounted to [and extending between said sides of] said frame;

[(c)] said frame having a first feed roll mounting structure [means for mounting a feed roll to said frame];

said frame having a second feed roll mounting structure;

[(d)] a second nip roller [rotatively] rotatably mounted [and extending between said sides of] to said frame adjacent said first nip roller;

[(e)] second mounting means for mounting a feed roll to said frame;]

[(f)] actuating means] an actuator constructed and arranged to affect nip roller [for imparting] rotation [to at least one of said nip rollers];

[(g)] first and second removable feed rolls [of material] each having a generally cylindrical core about which feed material is wound [and] , said feed rolls being removably mounted to said feed roll mounting structures [supported] for [rotation in said respective first and second mounting means] rotational unwinding of said feed material; and

[(h)] said feed rolls comprising pre-tensioning [means] structure associated with each of said cores [for], said-pre-tensioning structure being constructed and arranged such that, when said feed rolls are removably mounted to said frame, said pre-tensioning structure cooperates with said frame so as to [selectively establishing] establish a predetermined resistance to rotation of the feed rolls [of material] to provide [the] proper application tension [for unwinding] to the feed material during the unwinding thereof [wherein said pre-tensioning means includes a tensioning cap

affixed to said cores, said caps having an end plate engaging the end of the associated core and said plate with securement means engageable in said mounting means and further including biasing means for applying a predetermined force biasing said end plate into engagement with the end of said roll core],

wherein the removable mounting of said feed rolls allows an operator to remove said feed rolls from said frame and thereafter removably mount replacement feed rolls to said frame.

2. The applicator and transfer device of claim 1 including [means] nip roller moving structure constructed and arranged to move [for moving] said nip rollers from a first position out of engagement into a second position into engagement with one another.

3. The applicator and transfer device of claim 1 wherein said [first and second mounting means] frame comprises [slot means] slots located [in the] on opposite sides of [the] said frame, said feed rolls being removably mounted in said slots.

4. The applicator and transfer device of claim 1 further including a feed tray [means polished] disposed adjacent said nip rollers for guiding a master into said nip rollers.

5. The applicator and transfer device of claim 4 further including a cut-off [means] mechanism located adjacent the nip rollers opposite the feed tray, said

cut-off mechanism being constructed and arranged to cut substrates discharged from the nip rollers.

6. The applicator and transfer device of claim 1 wherein [the axis of] said nip rollers [are] have parallel [to one another] axes and wherein the axis of one of said nip rollers is horizontally displaced relative to the other nip roller.

7. The applicator and transfer device of claim [1] 3 further including biasing [means for maintaining] biasing structure constructed and arranged to removably maintain said feed rolls in their respective [mounting means] slots.

8. The applicator and transfer device of claim 2 wherein said [means] nip roller moving structure is [for moving said nip rollers comprises] a gibb plate.

9. The applicator and transfer device of claim 1 wherein said feed rolls are located immediately adjacent the associated nip roller.

10. An applicator and adhesive transfer device comprising:

[(a)] an upper frame member [having opposite sides] and a lower frame member [having opposite sides], said upper frame member being pivotally connected to said lower frame member;

[(b)] a first nip roller [rotatively] rotatably mounted to [and extending between the sides] of [said upper frame member;]

[(c)] a first feed roll mounting structure [means] associated with the upper frame member;

a second feed roll mounting structure associated with the lower frame member;

[(d)] a second nip roller [rotatively] rotatably mounted to [and extending between the sides of] said lower frame member;

[(e)] second mounting means associated with the said lower frame member.;

[(f)] first and second removable feed rolls [of feed material] each having a generally cylindrical core about which [the] feed material is wound [and] said feed rolls being removably mounted to said feed roll mounting structures [supported] for [rotation in said respective first and second mounting means] rotational unwinding of said feed material;

[(g)] said feed rolls comprising pre-tensioning [means integrally] structure associated with each of said cores [for] said pre-tensioning structure being constructed and arranged such that, when said feed rolls are removably mounted to said frame, said pre-tensioning structure cooperates with said upper and lower frame members so as to establish [selectively establishing] a predetermined resistance to rotation of the feed rolls [of feed material] to provide [the] proper application tension [for] to the feed material during the unwinding thereof[, said pre-tensioning means including a tensioning cap affixed to said associated core having an end plate engaging the associated core and said plate having with securement means engageable in said mounting means and further including biasing means for applying a predetermined force biasing said end plate into engagement with the associated core]; and

[(h)] actuating means] an actuator constructed and arranged to affect [for imparting] nip roller rotation [to at least one of said nip rollers];

wherein the removable mounting of said feed rolls allows an operator to remove said feed rolls from said frame and thereafter removably mount replacement feed rolls to said frame.

11. The applicator and adhesive transfer device of claim 10 wherein said upper frame member is [pivotal between a non-actuated position and an actuated position in which the nip rollers are in engagement] pivotably connected to said lower frame member.

12. The applicator and adhesive transfer device of claim [11] 10 further including [gear means] intermeshing gears associated with each of said first and second nip rollers [wherein] such that actuation of one nip roller will impart rotation to the other of said nip rollers.

13. The applicator and adhesive transfer device of claim 10 wherein said [mounting means] frame comprises [slot means] slots in said upper and lower frame members, said feed rolls being removably mounted in said slots [and further including first and second feed rolls each having engagement means engageable in said mounting means].

Cancel claims 14 and 15.

16. The applicator and adhesive transfer device of claim 10 further including a feed tray [generally aligned with the inner face of the] disposed adjacent said nip rollers when said [nip rollers are in said second engaged position] upper

frame member is in said closed position and being configured to guide a master into said nip rollers.

17. The applicator and adhesive transfer device of claim 10 further including a cut-off [means] mechanism constructed and arranged to cut substrates discharged from the nip rollers.

18. The applicator and adhesive transfer device of claim 10 wherein said nip rollers have parallel axes and the axis of said [second] one nip roller is horizontally displaced from the axis of [said second] the other nip roller.

19. (New) The applicator and transfer device of claim 1, wherein said pre-tensioning structure of each feed roll includes a tensioning cap affixed to an associated core, said cap having an end plate engaging an end of the associated core and biasing structure for applying a predetermined biasing force biasing said end plate into engagement with the end of said core, said plate having securement structure engageable with said frame.

20. (New) The applicator and transfer device of claim 10, wherein said pre-tensioning structure of each feed roll includes a tensioning cap affixed to an associated core, said cap having an end plate engaging an end of the associated core and biasing structure for applying a predetermined biasing force biasing said end plate into engagement with the end of said core, said plate having securement structure engageable with said frame.

21. (New) A laminating and adhesive transfer apparatus to be used in conjunction with a pair of feed roll assemblies, each of said feed roll assemblies having a core carrying a supply of stock material to be unwound and comprising pre-tensioning structure engaged with said core, said apparatus comprising:

a frame providing feed roll mounting structures, said mounting structures being constructed and arranged to removably mount the feed roll assemblies to said frame;

a pair of nip rollers rotatably mounted to said frame;

said feed roll mounting structures being constructed and arranged such that the stock material can be unrolled from each of the feed roll assemblies and fed between said nip rollers along with a master when the feed roll assemblies are removably mounted to said frame;

an actuator constructed and arranged to affect nip roller rotation such that said nip rollers cooperate to perform a laminating or adhesive transfer process on the master and the stock materials fed therebetween and thereafter discharge the processed master and stock materials outwardly therefrom;

each of said feed roll mounting structures being constructed and arranged to engage the feed roll assembly removably mounted thereto such that the pre-tensioning structure of the feed roll assembly cooperates with said frame to apply frictional resistance to the core, thereby tensioning the stock material being unwound from the feed roll assembly;

said feed roll mounting structures being constructed and arranged such that the feed roll assemblies can be removed from said apparatus to thereby allow replacement feed roll assemblies to be removably mounted to said frame.

22. (New) A laminating and adhesive transfer apparatus according to claim 21, wherein said feed roll mounting structure comprise slots positioned and configured to removably receive the feed roll assemblies.

23. (New) A laminating and adhesive transfer device according to claim 22. wherein said slots are configured to engage tabs extending outwardly from the pre-tensioning structures of the feed roll assemblies.

24. (New) A laminating and adhesive transfer apparatus according to claim 23, wherein said nip rollers are mounted for movement towards and away from one another, said apparatus further comprising:

a nip engagement lever associated with nip rollers, said lever being constructed and arranged such that movement of said lever moves said nip rollers (1) towards one another into a closed position wherein the nip rollers can perform said laminating or adhesive transfer process and (2) away from one another to a separated position to provide access between said nip roller for facilitating loading of the stock material.

25. (New) A laminating and adhesive transfer apparatus according to claim 24, further comprising:

a feed tray providing a planar feeding surface configured to support the master before feeding it between said nip rollers.

26. (New) A laminating and adhesive transfer apparatus according to claim 25, further comprising:

a cutting bar positioned and configured to allow a user to sever the processed master and stock materials being discharged outwardly from said nip rollers.

27. (New) A laminating and adhesive transfer apparatus according to claim 26, wherein said slots comprise upper slots extending vertically and lower slots extending horizontally.

28. (New) A feed roll assembly to be used in conjunction with a laminating and adhesive transfer apparatus, the apparatus comprising a pair of nip rollers, a frame, feed roll mounting structure, and an actuator constructed and arranged to affect nip roller rotation, said assembly comprising:

a core carrying a supply of stock material to be unwound; and

pre-tensioning structure engaged with said core;

said pre-tensioning structure being constructed and arranged to removably mount said feed roll assembly to the feed roll mounting structure of the apparatus such that said feed roll assembly can be removed from the apparatus to thereby allow replacement feed roll assemblies to be removably mounted to the frame;

said core being constructed and arranged such that, when said feed roll assembly is removably mounted to the frame, the stock material can be unwound, disposed on one opposing side of a master, and thereafter be fed between the nip rollers along with stock material disposed on the other opposing side of the nip roller. thereby enabling a user to operate the apparatus actuator and affect the nip roller rotation such that the nip rollers cooperate to perform a laminating or adhesive transfer process to the master and stock materials and subsequently discharge the processed master and stock materials outwardly therefrom;

said pre-tensioning structure being constructed and arranged such that, when said feed roll assembly is removably mounted to the feed roll mounting structure of the frame, said pre-tensioning structure cooperates with the frame to apply frictional resistance to the core, thereby tensioning the stock material being unwound from the core.

29. (New) A feed roll assembly according to claim 28, wherein said pre-tensioning structure comprises end plates having interior surfaces, engaged with opposing ends of said core,

said end plates being positioned and configured to be engaged with the frame when said assembly is removably mounted to the frame such that said interior surfaces of said end plates apply said frictional resistance.

30. (New) A feed roll assembly according to claim 29, wherein said pre-tensioning structure further comprises end caps received within said opposing ends of said core,

said end plates being secured to said end caps.

31. (New) A feed roll assembly according to claim 30, wherein said pre-tensioning structure further comprises:

a pair of threaded shafts securing said end plates to said end caps; and

a pair of nuts threadingly engaged with said threaded shafts and engaged with exterior surfaces of said end caps,

said pre-tensioning structure being constructed and arranged such that the amount of frictional resistance applied to said core can be adjusted by adjusting positions of said nuts.

32. (New) A feed roll assembly according to claim 31, wherein said end plates comprise mounting tabs positioned and configured to be removably received within slots on the apparatus frame when said feed roll assembly is removably mounted to the frame.

33. (New) A feed roll assembly according to claim 32, wherein said stock material is laminating material.

34. (New) A feed roll assembly according to claim 32, wherein said stock material is adhesive transfer material.

35. (New) A feed roll assembly according to claim 32, wherein said end plate is circular.

REISSUE DECLARATION

We, Franklin C. Bradshaw of 8621 E. Cheryl Drive, Scottsdale, AZ 85258, a citizen of the United States, and Thomas L. Soderman of 14539 Old Guslander Trail, Marine on St. Crois, MN 55407, a citizen of the United States, hereby declare that we are joint inventors of the subject matter of U.S. Patent No. 5,584,962 (the '962 patent) entitled LAMINATING AND ADHESIVE TRANSFER APPARATUS, which issued December 17, 1996, from U.S. Patent Appln. No. 247,003, filed May 20, 1994 (the '003 application).

We believe that the '962 patent is partially inoperative by virtue of claiming both more and less than we had the right to claim and by reason of the drawings and specification being defective in ways which can be validly corrected.

When we initially developed the subject matter of the '962 patent, we believed that there were two important aspects. First, we believed that the removability of the feed rolls was important because it allowed a user to interchange the apparatus with feed rolls of varying stock materials. For example, a user could removably mount feed rolls containing stock material for laminating to the apparatus, perform laminating operations, and thereafter remove the rolls and replace them with rolls for adhesive transfer operations. None of the claims in the '962 patent, however, recite such feed roll removability. All that independent claims 1 and 10 state with respect to the mounting of the feed rolls was that they are "supported for rotation in said respective first and second mounting means[,]" with no mention of removability. Because we believe such removability to be an important feature, we now seek to narrow the claims of the '962 patent to an apparatus with removable feed rolls. Specifically, the present reissue application amends both independent claims 1 and 10 to recite:

said feed rolls being removably mounted to said feed roll mounting
structures to allow for rotational unwinding of said feed material

* * *

wherein the removable mounting of said feed rolls allows an operator to
remove said feed rolls from the frame and thereafter removably mount
replacement feed rolls to said frame.

Second, we also believed that the pre-tensioning of the feed rolls was important to the subject matter of the '962 patent to ensure proper application tension of the feed material. The claims of the '962 patent, however, are limited to the specific structural arrangement of components. Specifically, issued claim 1 recites:

pre-tensioning means associated with each of said cores for selectively establishing a predetermined resistance to rotation of the rolls of material to provide the proper application tension for unwinding the feed material wherein said pre-tensioning means includes a tensioning cap affixed to said cores, said caps having an end plate engaging the end of the associated core and said plate with securement means engageable in said mounting means and further including biasing means for applying a predetermined force biasing said end plate into engagement with the end of said core.

Claim 10 recites substantially the same limitations with the exception that the pre-tension means is "integrally associated" with each of the cores. Although the claimed structural arrangement of the pre-tensioning means is advantageous because a manufacturer can adjust the pre-tensioning by simply turning a screw, we did not intend ourselves to be limited to that claimed arrangement. Thus, we believe claims 1 and 10 (and hence all their respective independent claims) are overly narrow and thus we claimed less than we had a right to claim.

To correct this mistake, the present reissue application amends claims 1 and 10 to remove the limitations associated with the specific structural arrangement of the pre-tensioning means.

Claims 1, as presented by this reissue application, now recites:

said feed rolls comprising pre-tensioning structure associated with each of said cores, said pre-tensioning structure being constructed and arranged such that, when said feed rolls are removably mounted to said frame, said pre-tensioning structure cooperates with said frame so as to establish a predetermined resistance to rotation of the feed rolls to provide proper application tension to the feed material during the unwinding thereof.

Claim 10 now contains substantially the same limitations as claim 1, with the exception that the pre-tensioning structure "cooperates with said upper and lower frame members" rather than the frame.

We also believe that the claims of the '962 patent may be overly narrow because a number of the claims contain recitations phrased in the "means or step for performing a specified function" format permitted by 35 U.S.C. sec. 112, par. 6. As we understand it, claim language phrased in this manner is interpreted as being limited to the structures disclosed in the application for performing that step or function and their equivalents. We do not intend our claims to be limited to such an interpretation. To correct this error, every claim reciting 'means plus function' language has been amended to recite positive structure. For the sake of brevity, reference can be made to the attached reissue application to see each instance where such amendments are being made.

Additionally, at the time we developed the subject matter of the '962 patent, we considered both the apparatus and the feed rolls to be commercially valuable independently from one another. Specifically, we believed that the feed rolls and apparatus could be sold separately from one another and that there would be a secondary market of apparatus owners desiring replacement feed rolls. The claims of the '962 patent, however, are directed to the combination of the apparatus and the feed rolls. To correct this mistake, we are presenting new claims 21 to 27 and 28 to 35 which respectively recite the apparatus and the feed rolls independently from one another.

Claim 21 recites:

A laminating and adhesive transfer apparatus to be used in conjunction with a pair of feed roll assemblies, each of said feed roll assemblies having a core carrying a supply of stock material to be unwound and comprising pre-tensioning structure engaged with said core, said apparatus comprising:

a frame providing feed roll mounting structures, said mounting structures being constructed and arranged to removably mount the feed roll assemblies to said frame;

a pair of nip rollers rotatably mounted to said frame;

said feed roll mounting structures being constructed and arranged such that the stock material can be unrolled from each of the feed roll assemblies and fed between said nip rollers along with a master when the feed roll assemblies are removably mounted to said frame;

an actuator constructed and arranged to affect nip roller rotation such that said nip rollers cooperate to perform a laminating or adhesive transfer process on the master and the stock materials fed therebetween and thereafter discharge the processed master and stock materials outwardly therefrom;

each of said feed roll mounting structures being constructed and arranged to engage the feed roll assembly removably mounted thereto such that the pre-tensioning structure of the feed roll assembly cooperates with said frame to apply frictional resistance to the core, thereby tensioning the stock material being unwound from the roll assembly;

said feed roll mounting structures being constructed and arranged such that the feed roll assemblies can be removed from said apparatus to thereby allow replacement feed roll assemblies to be removably mounted to said frame.

Claim 28 recites:

A feed roll assembly to be used in conjunction with a laminating and adhesive transfer apparatus, the apparatus comprising a pair of nip rollers, a frame, feed roll mounting structure, and an actuator constructed and arranged to affect nip roller rotation, said assembly comprising:

a core carrying a supply of stock material to be unwound;
and
pre-tensioning structure engaged with said core;

said pre-tensioning structure being constructed and arranged to removably mount said feed roll assembly to the feed roll mounting structure of the apparatus such that said feed roll assembly can be removed from the apparatus to thereby allow a replacement feed roll assembly to be removably mounted to the frame;

said core being constructed and arranged such that, when said feed roll assembly is removably mounted to the frame, the stock material can be unwound, disposed on one opposing side of a master, and thereafter be fed between the nip rollers along with stock material disposed on the other opposing side of the nip roller, thereby enabling a user to operate the apparatus actuator and affect

the nip roller rotation such that the nip rollers cooperate to perform a laminating or adhesive transfer process to the master and stock materials and subsequently discharge the processed master and stock materials outwardly therefrom;

said pre-tensioning structure being constructed and arranged such that, when said feed roll assembly is removably mounted to the feed roll mounting structure of the frame, said pre-tensioning structure cooperates with the frame to apply frictional resistance to the core, thereby tensioning the stock material being unwound from the core.

We also believe that dependent claims 14 and 15 of the '962 patent may be invalid for ambiguity. Specifically, claim 14 recites a pre-tensioning means and claim 15 recites an end plate. The pre-tensioning means and the end plate are both recited in issued independent claim 10 and hence it may be unclear whether the recited elements of dependent claims 14 and 15 are in addition to the elements of claim 10 or further defining the elements of claim 10. The present reissue application cancels claims 14 and 15, thus obviating this confusion.

With respect to the specification and drawings, reference numeral 130 is used in the Figures and specification to denote the feed tray of the apparatus and the label areas of the master. To clarify this error, a Letter to the Chief Draftsman changing 130 (denoting the feed tray) in Figs. 1 and 5 to 131 accompanies the present reissue application. Also, column 4, line 1 of the specification is being amended to recite "feed tray 131" rather than "feed tray 130."

We hereby declare that all errors sought to be corrected in the present reissue application arose without any deceptive intent on our parts.

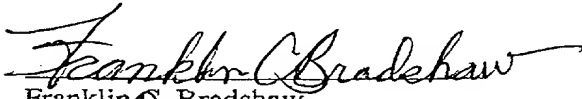
We have reviewed and understand the contents of the attached specification, including the claims as amended by any amendments specifically referred to in this declaration and we believe ourselves to be the original and first inventors of the subject matter which is claimed and for which a patent is sought. We also acknowledge our duty to disclose to the U.S. Patent Office all information known to be material to patentability as defined in § 1.56.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

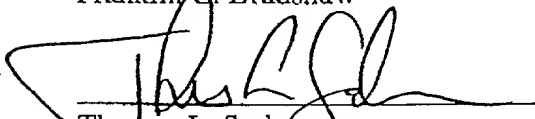
And I hereby appoint Pillsbury Madison & Sutro LLP, Intellectual Property Group, 1100 New York Avenue, N.W., Ninth Floor, East Tower, Washington, D.C. 20005-3918, telephone number (202) 861-3000 (to whom all communications are to be directed), and the below-named persons (of the same address) individually and collectively my attorneys to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith and with the resulting patent, and I hereby authorize them to delete names/numbers below of persons no longer with their firm and to act and rely on instructions from and communicate directly with the person/assignee/attorney/firm/ organization who/which first sends/sent this case to them and by whom/which I hereby declare that I have consented after full disclosure to be represented unless/until I instruct the above Firm and/or a below attorney in writing to the contrary.

Paul N. Kokulis	16773	David W. Brinkman	20817	G. Paul Edgell	24238	Richard H. Zaitlen
Raymond F. Lippitt	17519	Donald J. Bird	25323	Lynn E. Eccleston	35861	Roger R. Wise
G. Lloyd Knight	17698	Peter W. Gowdey	25872	Timothy J. Klinia	34852	Jay M. Finkelstein
Carl G. Love	18781	Dale S. Lazzar	28872	David A. Jakopin	32995	Anita M. Kirkpatrick
Edgar H. Martin	20534	Paul E. White, Jr.	32011	Mark G. Paulson	30793	Michael R. Dzwonczyk
William K. West, Jr.	22057	Glenn J. Perry	28458	Stephen C. Glazier	31361	W. Patrick Bengtsson
Kevin E. Joyce	20508	Kendrew H. Colton	30368	Paul F. McQuade	31542	
George M. Sirilla	18221	Michelle N. Lester	32331	Ruth N. Morduch	31044	

We hereby acknowledge that willful false statements and the like are punishable by fine or imprisonment, or both (18 U.S.C. § 1001) and may jeopardize the validity of the present application or any patent issuing thereon. All statements made of our own knowledge are true and all statements made on information and belief are believed to be true.


Franklin C. Bradshaw

12/14/98
Date


Thomas L. Soderman

12/14/98
Date

The undersigned hereby assents to the attached reissue application on behalf of Imperial Bank, the assignee of interest in the above mentioned '962 patent.

Signed: _____

Date: _____

Name: _____

Title: _____

REISSUE DECLARATION

We, Franklin C. Bradshaw of 8621 E. Cheryl Drive, Scottsdale, AZ 85258, a citizen of the United States, and Thomas L. Soderman of 14539 Old Guslander Trail, Marine on St. Crois, MN 55407, a citizen of the United States, hereby declare that we are joint inventors of the subject matter of U.S. Patent No. 5,584,962 (the '962 patent) entitled LAMINATING AND ADHESIVE TRANSFER APPARATUS, which issued December 17, 1996, from U.S. Patent Appln. No. 247,003, filed May 20, 1994 (the '003 application).

We believe that the '962 patent is partially inoperative by virtue of claiming both more and less than we had the right to claim and by reason of the drawings and specification being defective in ways which can be validly corrected.

When we initially developed the subject matter of the '962 patent, we believed that there were two important aspects. First, we believed that the removability of the feed rolls was important because it allowed a user to interchange the apparatus with feed rolls of varying stock materials. For example, a user could removably mount feed rolls containing stock material for laminating to the apparatus, perform laminating operations, and thereafter remove the rolls and replace them with rolls for adhesive transfer operations. None of the claims in the '962 patent, however, recite such feed roll removability. All that independent claims 1 and 10 state with respect to the mounting of the feed rolls was that they are "supported for rotation in said respective first and second mounting means[.]" with no mention of removability. Because we believe such removability to be an important feature, we now seek to narrow the claims of the '962 patent to an apparatus with removable feed rolls. Specifically, the present reissue application amends both independent claims 1 and 10 to recite:

said feed rolls being removably mounted to said feed roll mounting
structures to allow for rotational unwinding of said feed material

* * *

wherein the removable mounting of said feed rolls allows an operator to
remove said feed rolls from the frame and thereafter removably mount
replacement feed rolls to said frame.

Second, we also believed that the pre-tensioning of the feed rolls was important to the subject matter of the '962 patent to ensure proper application tension of the feed material. The claims of the '962 patent, however, are limited to the specific structural arrangement of components. Specifically, issued claim 1 recites:

pre-tensioning means associated with each of said cores for selectively establishing a predetermined resistance to rotation of the rolls of material to provide the proper application tension for unwinding the feed material wherein said pre-tensioning means includes a tensioning cap affixed to said cores, said caps having an end plate engaging the end of the associated core and said plate with securement means engageable in said mounting means and further including biasing means for applying a predetermined force biasing said end plate into engagement with the end of said core.

Claim 10 recites substantially the same limitations with the exception that the pre-tension means is "integrally associated" with each of the cores. Although the claimed structural arrangement of the pre-tensioning means is advantageous because a manufacturer can adjust the pre-tensioning by simply turning a screw, we did not intend ourselves to be limited to that claimed arrangement. Thus, we believe claims 1 and 10 (and hence all their respective independent claims) are overly narrow and thus we claimed less than we had a right to claim.

To correct this mistake, the present reissue application amends claims 1 and 10 to remove the limitations associated with the specific structural arrangement of the pre-tensioning means.

Claims 1, as presented by this reissue application, now recites:

said feed rolls comprising pre-tensioning structure associated with each of said cores, said pre-tensioning structure being constructed and arranged such that, when said feed rolls are removably mounted to said frame, said pre-tensioning structure cooperates with said frame so as to establish a predetermined resistance to rotation of the feed rolls to provide proper application tension to the feed material during the unwinding thereof.

Claim 10 now contains substantially the same limitations as claim 1, with the exception that the pre-tensioning structure “cooperates with said upper and lower frame members” rather than the frame.

We also believe that the claims of the ‘962 patent may be overly narrow because a number of the claims contain recitations phrased in the “means or step for performing a specified function” format permitted by 35 U.S.C. sec. 112, par. 6. As we understand it, claim language phrased in this manner is interpreted as being limited to the structures disclosed in the application for performing that step or function and their equivalents. We do not intend our claims to be limited to such an interpretation. To correct this error, every claim reciting ‘means plus function’ language has been amended to recite positive structure. For the sake of brevity, reference can be made to the attached reissue application to see each instance where such amendments are being made.

Additionally, at the time we developed the subject matter of the ‘962 patent, we considered both the apparatus and the feed rolls to be commercially valuable independently from one another. Specifically, we believed that the feed rolls and apparatus could be sold separately from one another and that there would be a secondary market of apparatus owners desiring replacement feed rolls. The claims of the ‘962 patent, however, are directed to the combination of the apparatus and the feed rolls. To correct this mistake, we are presenting new claims 21 to 27 and 28 to 35 which respectively recite the apparatus and the feed rolls independently from one another.

Claim 21 recites:

A laminating and adhesive transfer apparatus to be used in conjunction with a pair of feed roll assemblies, each of said feed roll assemblies having a core carrying a supply of stock material to be unwound and comprising pre-tensioning structure engaged with said core, said apparatus comprising:

a frame providing feed roll mounting structures, said mounting structures being constructed and arranged to removably mount the feed roll assemblies to said frame;

a pair of nip rollers rotatably mounted to said frame;

said feed roll mounting structures being constructed and arranged such that the stock material can be unrolled from each of the feed roll assemblies and fed between said nip rollers along with a master when the feed roll assemblies are removably mounted to said frame;

an actuator constructed and arranged to affect nip roller rotation such that said nip rollers cooperate to perform a laminating or adhesive transfer process on the master and the stock materials fed therebetween and thereafter discharge the processed master and stock materials outwardly therefrom;

each of said feed roll mounting structures being constructed and arranged to engage the feed roll assembly removably mounted thereto such that the pre-tensioning structure of the feed roll assembly cooperates with said frame to apply frictional resistance to the core, thereby tensioning the stock material being unwound from the roll assembly;

said feed roll mounting structures being constructed and arranged such that the feed roll assemblies can be removed from said apparatus to thereby allow replacement feed roll assemblies to be removably mounted to said frame.

Claim 28 recites:

A feed roll assembly to be used in conjunction with a laminating and adhesive transfer apparatus, the apparatus comprising a pair of nip rollers, a frame, feed roll mounting structure, and an actuator constructed and arranged to affect nip roller rotation, said assembly comprising:

a core carrying a supply of stock material to be unwound;
and
pre-tensioning structure engaged with said core;

said pre-tensioning structure being constructed and arranged to removably mount said feed roll assembly to the feed roll mounting structure of the apparatus such that said feed roll assembly can be removed from the apparatus to thereby allow a replacement feed roll assembly to be removably mounted to the frame;

said core being constructed and arranged such that, when said feed roll assembly is removably mounted to the frame, the stock material can be unwound, disposed on one opposing side of a master, and thereafter be fed between the nip rollers along with stock material disposed on the other opposing side of the nip roller, thereby enabling a user to operate the apparatus actuator and affect

the nip roller rotation such that the nip rollers cooperate to perform a laminating or adhesive transfer process to the master and stock materials and subsequently discharge the processed master and stock materials outwardly therefrom;

said pre-tensioning structure being constructed and arranged such that, when said feed roll assembly is removably mounted to the feed roll mounting structure of the frame, said pre-tensioning structure cooperates with the frame to apply frictional resistance to the core, thereby tensioning the stock material being unwound from the core.

We also believe that dependent claims 14 and 15 of the '962 patent may be invalid for ambiguity. Specifically, claim 14 recites a pre-tensioning means and claim 15 recites an end plate. The pre-tensioning means and the end plate are both recited in issued independent claim 10 and hence it may be unclear whether the recited elements of dependent claims 14 and 15 are in addition to the elements of claim 10 or further defining the elements of claim 10. The present reissue application cancels claims 14 and 15, thus obviating this confusion.

With respect to the specification and drawings, reference numeral 130 is used in the Figures and specification to denote the feed tray of the apparatus and the label areas of the master. To clarify this error, a Letter to the Chief Draftsman changing 130 (denoting the feed tray) in Figs. 1 and 5 to 131 accompanies the present reissue application. Also, column 4, line 1 of the specification is being amended to recite "feed tray 131" rather than "feed tray 130."

We hereby declare that all errors sought to be corrected in the present reissue application arose without any deceptive intent on our parts.

We have reviewed and understand the contents of the attached specification, including the claims as amended by any amendments specifically referred to in this declaration and we believe ourselves to be the original and first inventors of the subject matter which is claimed and for which a patent is sought. We also acknowledge our duty to disclose to the U.S. Patent Office all information knew to be material to patentability as defined in § 1.56.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

And I hereby appoint Pillsbury Madison & Sutro LLP, Intellectual Property Group, 1100 New York Avenue, N.W., Ninth Floor, East Tower, Washington, D.C. 20005-3918, telephone number (202) 861-3000 (to whom all communications are to be directed), and the below-named persons (of the same address) individually and collectively my attorneys to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith and with the resulting patent, and I hereby authorize them to delete names/numbers below of persons no longer with their firm and to act and rely on instructions from and communicate directly with the person/assignee/attorney/firm/ organization who/which first sends/sent this case to them and by whom/which I hereby declare that I have consented after full disclosure to be represented unless/until I instruct the above Firm and/or a below attorney in writing to the contrary.

Paul N. Kokulis	16773	David W. Brinkman	20817	G. Paul Edgell	24238	Richard H. Zaitlen
Raymond F. Lippitt	17519	Donald J. Bird	25323	Lynn E. Eccleston	35861	Roger R. Wise
G. Lloyd Knight	17698	Peter W. Gowdey	25872	Timothy J. Klima	34852	Jay M. Finkelstein
Carl G. Love	18781	Dale S. Lazar	28872	David A. Jakopin	32995	Anita M. Kirkpatrick
Edgar H. Martin	20534	Paul E. White, Jr.	32011	Mark G. Paulson	30793	Michael R. Dzwonczyk
William K. West, Jr.	22057	Glenn J. Perry	28458	Stephen C. Glazier	31361	W. Patrick Bengtsson
Kevin E. Joyce	20508	Kendrew H. Colton	30368	Paul F. McQuade	31542	
George M. Sirilla	18221	Michelle N. Lester	32331	Ruth N. Morduch	31044	

We hereby acknowledge that willful false statements and the like are punishable by fine or imprisonment, or both (18 U.S.C. § 1001) and may jeopardize the validity of the present application or any patent issuing thereon. All statements made of our own knowledge are true and all statements made on information and belief are believed to be true.

Franklin C. Bradshaw

Date

Thomas L. Soderman

Date

The undersigned hereby assents to the attached reissue application on behalf of Imperial Bank, the assignee of interest in the above mentioned '962 patent.

Signed: Kevin C. Halloran

Date: 12/13/98

Name: Kevin C. Halloran

Title: Senior Vice President

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re REISSUE PATENT APPLICATION of

BRADSHAW et. al

Appln. No.: 09/213,876

Group Art Unit: 1734

Filed: December 17, 1998

Examiner: J. Sells

Title: LAMINATING AND ADHESIVE TRANSFER APPARATUS

* * * * *

CERTIFICATE UNDER 37 C.F.R. § 3.73(b)

On behalf of Xyron, Inc., the undersigned certifies that Xyron, Inc. is the assignee of the entire right, title and interest in the patent application identified above by virtue of a chain of title from the inventors of the patent and patent application identified above as shown below:

From Franklin C. Bradshaw and
Thomas L. Soderman to Product Search, Inc.,
recorded November 21, 1996, at Reel 8326, Frame 0148.

From Product Search, Inc. to Xyron, Inc., recorded
November 21, 1996, at Reel 8234, Frame 0694.

From Xyron, Inc. to Imperial Bank, recorded
April 21, 1997, at Reel 8478, Frame 0495.


From Imperial Bank to Xyron, Inc., recorded
May 13, 1999, at Reel 9942, Frame 0461.

The undersigned has reviewed all the documents in the chain of title of the present application and, to the best of the undersigned's knowledge and belief, title is in the assignee identified above.

The undersigned is empowered to sign this certificate on behalf of the assignee.

The undersigned declares further that all statements made herein on personal knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like are made punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code on that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: 2/29/00

By: 
T. Charles Ensign, Jr.
Chief Operating Officer

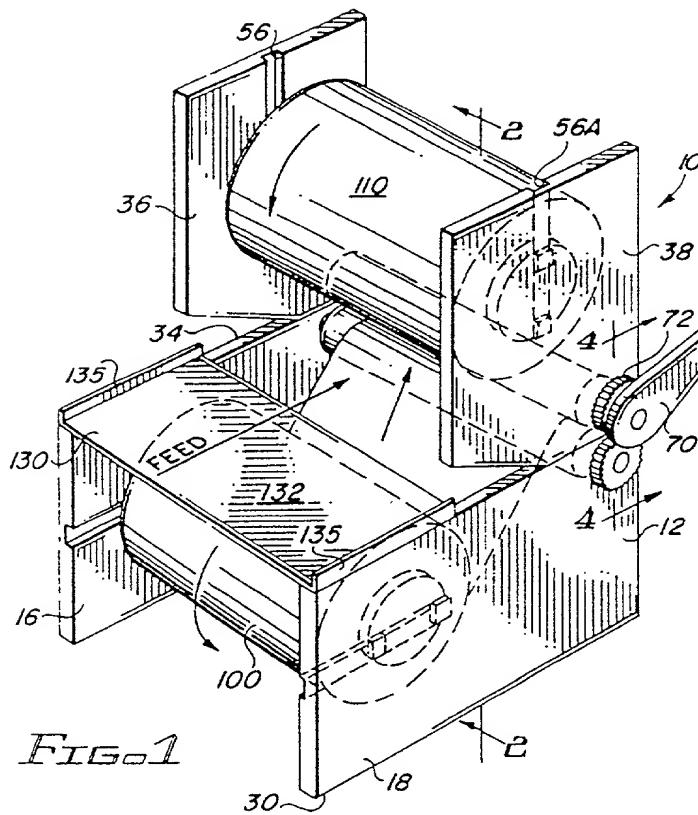


FIG. 1

FIG. 4

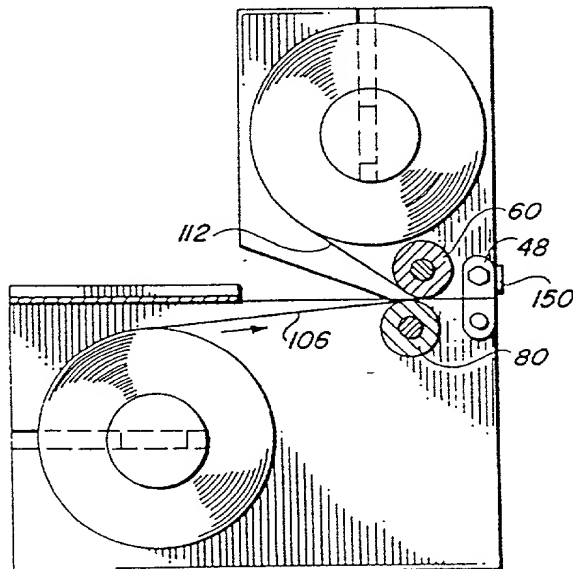
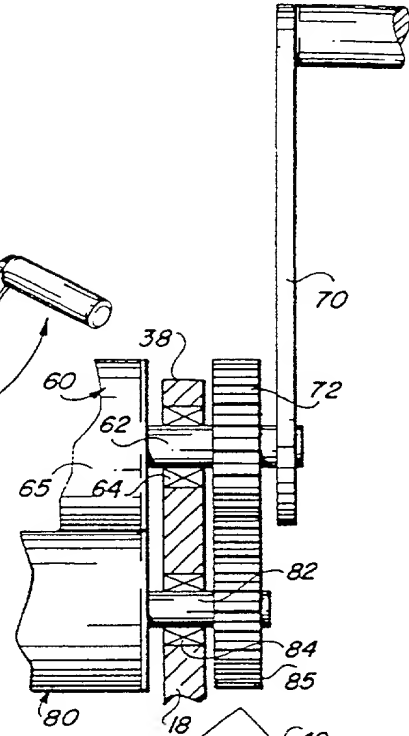


FIG. 2

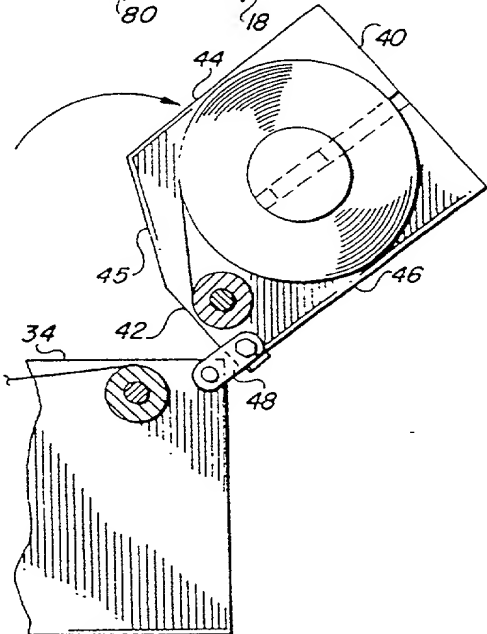


FIG. 3

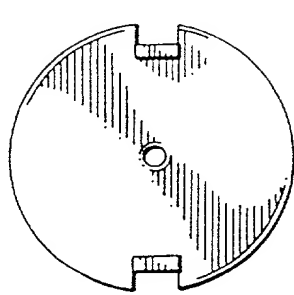


FIG. 6

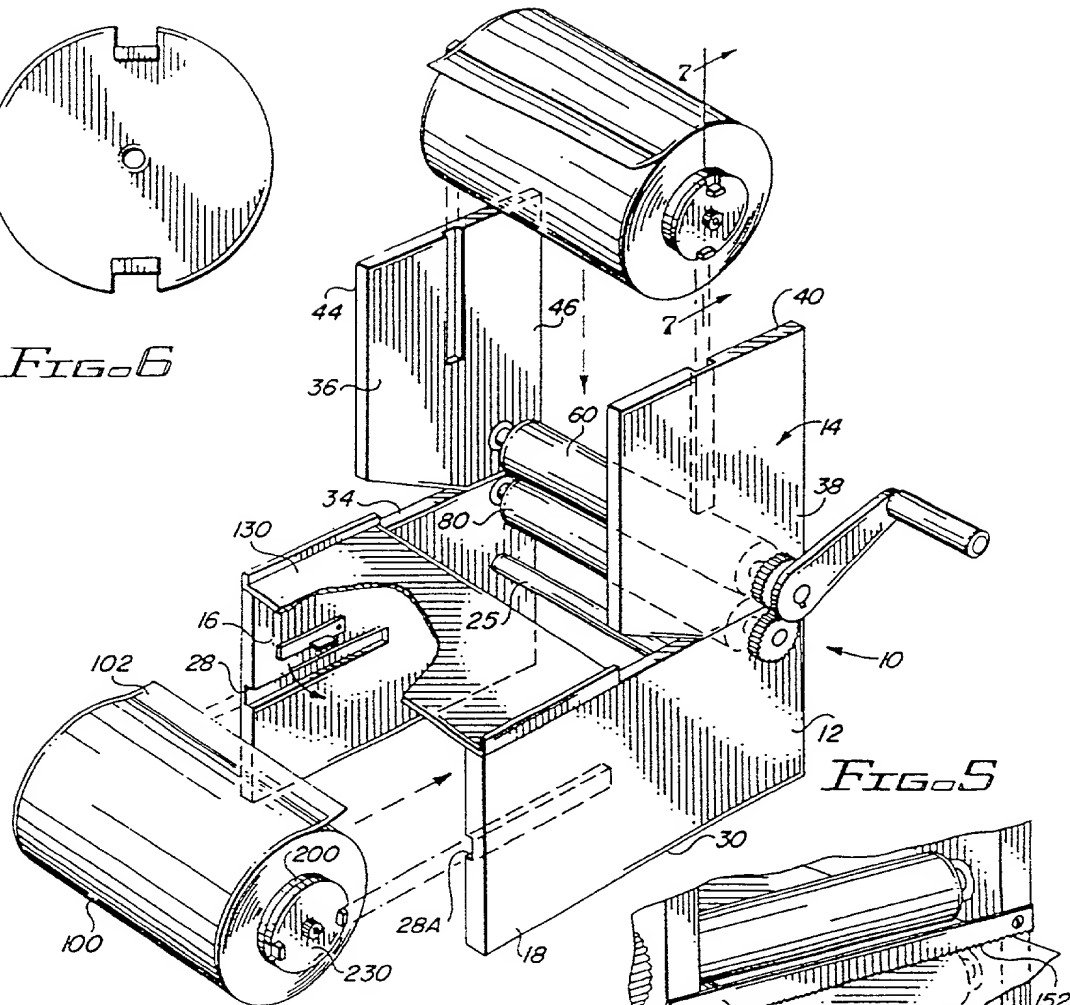


FIG. 5

FIG. 9

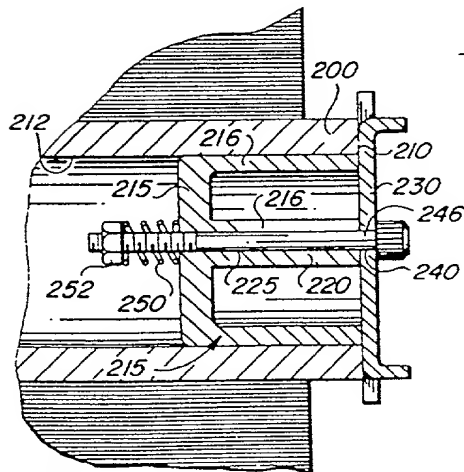


FIG. 7

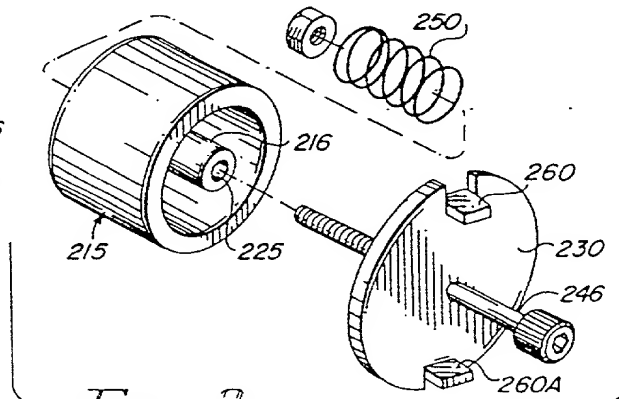


FIG. 8

